

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Canceled)
2. (Canceled)
3. (Canceled)
4. (Canceled)
5. (Canceled)
6. (Canceled)
7. (Canceled)
8. (Canceled)
9. (Canceled)
10. (Canceled)
11. (Previously presented) A component of semiconductor processing equipment, the component comprising an aluminum substrate and a ceramic layer of cerium

oxide containing ceramic material on the substrate and forming an outermost surface of the component, wherein the cerium oxide containing ceramic material (a) consists essentially of one or more cerium oxides or (b) consists essentially of one or more cerium oxides as the single largest constituent thereof and an oxide of an element of the lanthanide series.

12. (Canceled)

13. (Canceled)

14. (Previously presented) The component according to Claim 11, wherein the aluminum substrate has an anodized surface and the ceramic layer is disposed on the anodized surface.

15. (Previously presented) The component according to Claim 11, wherein the ceramic layer has a thickness in a range from about 0.001 to 0.050 inches.

16. (Original) The component according to Claim 11, wherein the component comprises a part exposed to a plasma environment or a part exposed to bias voltages associated with a plasma environment.

17. (Previously presented) A component of semiconductor processing equipment, the component comprising a bulk part consisting essentially of a cerium oxide containing ceramic material, the component being selected from the group consisting of a plasma chamber wall, a chamber liner, a gas distribution plate, a gas ring, a pedestal, a dielectric window, an electrostatic chuck, and a focus ring, and the cerium oxide containing ceramic material comprising one or more cerium oxides as the single largest constituent thereof.

18. (Previously presented) A component of semiconductor processing equipment, the component comprising a cerium oxide containing ceramic material forming an outermost surface of the component, the component being selected from the group consisting of a plasma chamber wall, a chamber liner, a gas distribution plate, a gas ring, a pedestal, a dielectric window, an electrostatic chuck, and a focus ring, and the cerium oxide containing ceramic material comprising one or more cerium oxides as the single largest constituent thereof, wherein (a) the component is a bulk part consisting essentially of the cerium oxide containing ceramic material or (b) the cerium oxide containing ceramic material comprises a ceramic layer on a ceramic substrate.

19. (Original) The component according to Claim 11, wherein the cerium oxide comprises Ce(III) oxide and/or Ce(IV) oxide.

20. (Canceled)

21. (Canceled)

22. (Canceled)

23. (Canceled)

24. (Previously presented) The component according to Claim 11, wherein the component is selected from the group consisting of a plasma chamber wall, a chamber liner, a gas distribution plate, a gas ring, a pedestal, a dielectric window, an electrostatic chuck and a focus ring.

25. (Previously presented) The component according to Claim 17, wherein the component comprises a part exposed to a plasma environment or a part exposed to bias voltages associated with a plasma environment.

26. (Previously presented) The component according to Claim 17, wherein the cerium oxide comprises Ce(III) oxide and/or Ce(IV) oxide.

27. (Previously presented) The component according to Claim 18, wherein the cerium oxide containing ceramic material comprises a ceramic layer on a substrate.

28. (Previously presented) The component according to Claim 27, wherein the substrate comprises aluminum.

29. (Previously presented) The component according to Claim 28, wherein the aluminum substrate has an anodized surface and the ceramic layer is disposed on the anodized surface.

30. (Previously presented) The component according to Claim 18, wherein the ceramic layer has a thickness in a range of from about 0.001 to 0.050 inches.

31. (Previously presented) The component according to Claim 18, wherein the component comprises a part exposed to a plasma environment or a part exposed to bias voltages associated with a plasma environment.

32. (Previously presented) The component according to Claim 18, wherein the cerium oxide comprises Ce(III) oxide and/or Ce(IV) oxide.

33. (Previously presented) The component according to Claim 18, wherein the component is the bulk part.

34. (Previously presented) The component according to Claim 18, wherein the cerium oxide containing ceramic material comprises the ceramic layer on the ceramic substrate.

35. (Previously presented) The component according to Claim 34, wherein the substrate is selected from the group consisting of alumina, silicon carbide, silicon nitride, boron carbide, and boron nitride.

36. (Canceled)

37. (New) The component according to Claim 11, wherein the cerium oxide containing ceramic material consists essentially of (i) one or more cerium oxides as the single largest constituent thereof and (ii) an oxide of an element of the lanthanide series.

38. (New) The component according to Claim 11, wherein the substrate includes a roughened surface, and the ceramic layer is a plasma sprayed layer mechanically interlocked with the roughened surface.

39. (New) The component according to Claim 11, wherein the component is a component of a polysilicon high-density plasma etch chamber or a dielectric material etch chamber.

40. (New) The component according to Claim 11, including a first intermediate layer, the ceramic layer being (i) on the first intermediate layer or (ii) on an optional second

intermediate layer disposed on the first intermediate layer, the first intermediate layer and the optional second intermediate layer being of the same or a different material selected from the group consisting of refractory metals, Al₂O₃, SiC, Si₃N₄, boron carbide, AlN, TiO₂, and polymers.

41. (New) The component according to Claim 40, wherein the first intermediate layer includes a roughened surface, and the ceramic layer is a plasma sprayed layer mechanically interlocked with the roughened surface of the first intermediate layer.

42. (New) The component according to Claim 17, which is a sintered monolithic bulk part consisting essentially of the cerium oxide containing ceramic material.

43. (New) The component according to Claim 18, wherein the cerium oxide containing ceramic material consists essentially of (i) one or more cerium oxides as the single largest constituent thereof and (ii) an oxide of an element of the lanthanide series.

44. (New) The component according to Claim 18, wherein the ceramic substrate includes a roughened surface, and the ceramic layer is a plasma sprayed layer mechanically interlocked with the roughened surface.

45. (New) The component according to Claim 18, wherein the component is a component of a polysilicon high-density plasma etch chamber or a dielectric material etch chamber.

46. (New) The component according to Claim 18, including a first intermediate layer, the ceramic layer being (i) on the first intermediate layer or (ii) on an optional second intermediate layer disposed on the first intermediate layer, the first intermediate layer and

the optional second intermediate layer being of the same or a different material selected from the group consisting of refractory metals, Al₂O₃, SiC, Si₃N₄, boron carbide, AlN, TiO₂, and polymers.

47. (New) The component according to Claim 46, wherein the first intermediate layer includes a roughened surface, and the ceramic layer is a plasma sprayed layer interlocked with the roughed surface of the first intermediate layer.

48. (New) The component according to Claim 18, which is a sintered monolithic bulk part consisting essentially of the cerium oxide containing ceramic material.